



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,504	09/24/2001	Jung-kwon Heo	1293.1187	7211
49455	7590	12/09/2008	EXAMINER	
STEIN, MCEWEN & BUI, LLP			FISCHER, ANDREW J	
1400 EYE STREET, NW			ART UNIT	PAPER NUMBER
SUITE 300			3621	
WASHINGTON, DC 20005				
			MAIL DATE	DELIVERY MODE
			12/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/960,504

Filing Date: September 24, 2001

Appellant(s): HEO, JUNG-KWON

James G. McEwan
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 30 October 2006 appealing from the Office action
mailed 08 March 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is not correct. This Examiner's Answer contains a new grounds of rejection.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 5, 6, and 34-42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims to computer-related inventions that are clearly nonstatutory fall into the same general categories as nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature, which constitute "descriptive material." Abstract ideas, Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759, or the mere manipulation of abstract ideas, Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457-58, are not patentable. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs, which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data. Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the

function of the descriptive to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). When nonfunctional descriptive material is recorded on some computer-readable medium, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make it statutory. Such a result would exalt form over substance. *In re Sarkar*, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) ("[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under 101, the claimed invention, as a whole, must be evaluated for what it is.") (quoted with approval in *Abele*, 684 F.2d at 907, 214 USPQ at 687). See also *In re Johnson*, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) ("form of the claim is often an exercise in drafting"). Thus, nonstatutory music is not a computer component and it does not become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law. (See MPEP 2106) These claims are mere arrangements of data, and are thus non-statutory.

NEW GROUNDS OF REJECTION

Claim Rejections - 35 USC § 101

Claims 7 and 9 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Based on Supreme Court precedent¹ and recent Federal Circuit decisions, a §101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. See *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008) (en banc).

An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps.

To meet prong (1), the method step should positively recite the other statutory class (the thing or product) to which it is tied. This may be accomplished by having the claim positively recite the machine that accomplishes the method steps. Alternatively or to meet prong (2), the method step should positively recite identifying the material that is being changed to a different state or positively recite the subject matter that is being transformed.

In this particular case, the claims fail prong (1) because the method steps are not tied to a machine and can be performed without the use of a particular machine. Additionally, the claim(s) fail prong (2) because the method steps do not transform the underlying subject matter to a different state or thing. For example, the first method step of claim 7 recites "confirming an original coding method applied to original content data" but fails to identify a machine that performs the "confirming".

¹ See also *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

(10) Response to Argument

ISSUE A

On page 6 of the brief, Appellant states that a *prima facie* case has not been established to properly reject claims 5, 6, and 34-42 under 35 USC § 101. Through pages 7 and 8 of the brief the Appellant cites numerous court decisions and the MPEP, each citation accented by underline. Appellant continues to assert that the rejections lacks sufficient analysis to sustain a rejection under 35 USC § 101, and concludes the allegation by announcing that the examiner does not refer to specific features of the limitations claim found within remaining claims 6 and 34-42. Although the Appellant has cited MPEP section 2106 of the MPEP, the Examiner is concerned that the Appellant has ignored section **2106.01 [R-5] Computer-Related Nonstatutory Subject Matter**, which is most appropriate to the rejection at hand. Here, the MPEP clearly states the difference between "functional descriptive material" or nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs, which impart functionality when employed as a computer component. Obviously, this is not the case with claims 5 and 6 as written. Claims 5 and 6 recite only a recordable medium, not a computer-readable medium as dictated by the MPEP. With regard to claims 34-42, a proper review would conclude that each of the limitations does not meet the IEEE definition of data structure and is not functional descriptive material. The claims recite merely a collection of data and intended use or descriptions, of what the data would mean to an apparatus/method, not relationships of data to support data processing functions.

ISSUE B

Appellant states *Consistent with this understanding of patentable subject matter, claim 5 of the instant application recites "a content data structure stored on a recordable medium." As such, claim 5 does not claim a data structure in the abstract, but instead a data structure within a stored medium.* Appellant then recites Lowry; data structures are specific electrical or magnetic structural elements, etc. Claims 5 and 6 of the instant application claim no such structure, only a recordable medium. There is no computer, no electrical or magnetic structure, and no data stored on a computer-readable medium. Contrary to the Appellants contention that claims 5 and 6 recite stored functional descriptive material, these claims do not show data structure storing information defining interrelationships between the stored data and an apparatus, which permit the apparatus to perform defined functions. The claims recite merely a collection of data and intended use or descriptions of what the data would mean to an apparatus/method, not relationships of data to support data processing functions.

ISSUE C

Appellant, on pages 10 and 11 of the brief states that *claims 34-42 also define a patentable data structure having a patentable interrelationship beyond mere compilations of data.* However, claims 34-42 contain limitations that merely describe data that is stored on a computer readable medium and which perform no function. Data merely residing in a memory is non-functional when it does not impart any serviceable functionality to the apparatus. As written, the claims do not recite a *positive* step such as, for example, identifying information that indicates whether content data is original. The claims recite merely a collection of data and

intended use or descriptions of what the data would mean to an apparatus/method, not relationships of data to support data processing functions.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

This examiner's answer contains a new ground of rejection set forth in section (9) above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the new ground of rejection:

(1) Reopen prosecution. Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR 41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

(2) Maintain appeal. Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any

amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

Respectfully submitted,

/Jacob C. Coppola/

Examiner, Art Unit 3621


ANDREW J. FISCHER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600


VINCENT W. COGGINS
APPEALS PRACTICE
SPECIALIST

A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below:

WYNN W. COGGINS
TECHNOLOGY CENTER DIRECTOR

